



National Research Council



The Sandy Cove Seaweed Culture Station in Nova Scotia (left) is experimenting with the large-scale production of Irish moss seaweed in greenhouse tanks and on sites exposed to normal weather. Seawater is pumped through three sedimentation tanks and a filter before entering the growth tanks (upper left). Paddles keep the water in the tanks moving, a necessary condition if the seaweed is to grow. The cultured plant (above) is darker in colour than the wild one because of the use of fertilizer. Its spherical shape is probably caused by tumbling in the tank.

and equipment, livestock, seed and nursery stock, feed, and fertilizer increased steadily at rates of 15, 10, 23, 18, and 26 per cent per year respectively. In 1976, Canadian farmers spent \$1.4 billion on machinery, \$1.2 billion on feed and \$485 million on fertilizer.

In recent decades, as primary agricultural production has been substantially mechanized, a concurrent increase has taken place in the average size of farms, with small farms being consolidated into larger units. A significant number of fairly large commercial operations have emerged, many of which are still family owned; and farms organized as either partnerships or family farm corporations are expanding in number, as well as in average size, and contribute a large portion of total production. There has also been a trend toward increased specialization, with the number of different products derived from the average farm declining.

A major decline in the number of farm operators has followed these developments. It has occurred largely because retiring farmers have not been replaced, rather than because existing manpower has been displaced.

Since 1951 farm output has increased, in spite of the declining labour force. Productivity per unit of labour in the agricultural sector now exceeds the average of other sectors of the Canadian economy on both a per person and a per man-hour basis. A major contributing factor, in addition to the increased use of agricultural capital, has been a general upgrading of the technical and managerial skills of farm workers, especially owner-operators. The proportion of the Canadian farm-labour pool with some formal technical agricultural training is increasing steadily, and more farmers are gaining the expertise required for modern enterprises.

FISHERIES

Canada's ocean and freshwater fishery resources are an invaluable source of high protein food for Canadians and the rest of the world. The Atlantic, Pacific and Arctic coastlines extend more than 48,000 kilometres, and freshwater lakes and rivers cover more than 647,000 square kilometres. Some 150 species of fish and shellfish live in Canadian waters.

The Atlantic Ocean stretches around the provinces of Newfoundland, Nova Scotia, New Brunswick, Prince Edward Island and Québec. A chain of the world's richest fishing banks runs for nearly 3,220 kilometres from the Nantucket Shoals of New England to Flemish Cap at the eastern-most fringe of the Grand Banks off Newfoundland. Though the area is known for cod, it also has other species of ground fish, including haddock, hake, redfish, pollock and cusk. Flatfish, such as halibut, plaice, yellowtail and flounder, also populate the Atlantic waters, as do lobsters and other shellfish. Herring, mackerel, smelt and Atlantic salmon are numerous. In addition Irish moss and other marine algae have long been harvested by Maritimers.

Salmon predominate off the coast of British Columbia, although sole and other flatfish, albacore, clams, crabs and oysters can be found too.

The inland waters of Canada constitute more than one half of the world's fresh water. Important commercial fisheries in Ontario, the Prairie Provinces, Québec, New Brunswick, the Yukon and the Northwest Territories offer a great variety of fish. Whitefish can be found in all the provinces, and pickerel and trout, in scattered locations.

Fishing is Canada's oldest industry. Though initially abun-